

# Feasibility study on introduced of new environmentally friendly technology and potential for use of almond peel residue.

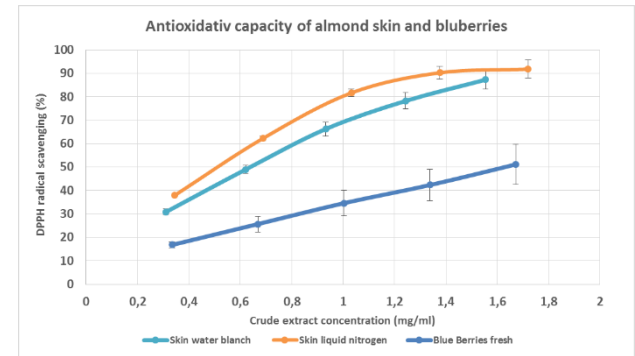
**Aim of the project:** Process optimization for optimal use of raw materials with environmentally and resource-effective technology.



Industrially removable of almond skin by hot water blanching or liquid nitrogen



Evaluating of potential use of almond skin as natural antioxidants ingredients



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**GOAL:**  
Demonstrate the use of cold gas for removal of skin from almonds on industrial scale. Evaluation of utilization of almond skin by-products of almond processing industry.



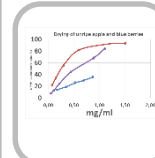
**OUTCOME:**  
Perspective of a novel process technology strategy and evaluation of use of by-product as high value bioactive ingredients from industrial waste.



**WHY:**  
Today almond skin is removed with hot water blanching. This procedure is water and energy costly. Almond skin is 8 % of raw material and not used today.



**WHO:**  
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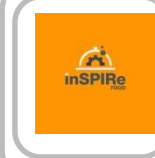
**HOW:**  
Study quality of almond and almond skin with alternative removal of skin and evaluate the possible use of these by-products as source of antioxidant. Characterization of phenolic compounds and crude extracts ability to radical scavenging of DPPH.



**BUDGET:** 500.000 DKr  
(200.000 DKr. Inspire food share)

**FUNDING BODY:** InSPIRe, Strandmøllen Industrigas A/S and Odense Marcipan A/S.

**PROJECT PERIOD:**  
Marts 2014 to December 2014



**RELATED TO INSPIRE PROJECT:**  
Pillar III: Improved Food Quality by Controlling Molecular Functionality and III-6 Use of .....by-products as natural and healthy ingredients for food products